

REMARKS

This amendment is responsive to the Office Action of December 13, 2007. Reconsideration and allowance of claims 1-17 are requested.

The Office Action

Claims 1-4 and 7-9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Subbarao in view of Anderson.

Claim 5 stands rejected under 35 U.S.C. § 103 as being unpatentable over Subbarao, in view of Anderson, further in view of Claus (US 6,987,829).

Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Subbarao, in view of Anderson, further in view of Gullberg (US 4,633,398).

Claim 2 stands rejected under 35 U.S.C. § 112, second paragraph.

The Claims Distinguish Patentably Over The References of Record

Claim 1 calls for weighting the projection data difference and filtering the projection data difference. The weighting finds antecedent basis in the present application in the weighting factor (λ). Filtering finds antecedent basis in the present application in the Equation on page 8, line 13. The “filtering” operation of Anderson described at page 90, lines 1-9 is more analogous to the weighting operation of claim 1. The weighting coefficient ($\omega_{i,j}$) is proportional to the length of the part of the corresponding ray that cuts the reconstruction circle. Thus, the rays which pass through the circle near the edge such that the ray part is short have one weighting coefficient; whereas, rays which traverse the center of the reconstruction circle where the part of the ray that is in the reconstruction circle is relatively long have a different weighting coefficient. Thus, the so-called “filter” of Anderson is actually a form of weighting in which the weighting coefficient for each ray is ray dependent.

Because claim 1 calls for a weighting operation and then performing the filtering on the weighted projection difference and Subbarao as modified by Anderson only performs ray length dependent weighting, it is submitted that **claim 1 and claims 2-7 dependent therefrom** distinguish patentably and unobviously over the references of record.

Claim 2 has been amended to replace the purpose of the filtering with a description of a specific filtering operation which achieves this purpose. Accordingly, it is submitted that claim 2 complies with the requirements of 35 U.S.C. § 112.

Claim 8 has been amended to set forth the filtering and related operations in greater specificity to distinguish claim 8 more forcefully over the ray length dependent weighting of Anderson. Further, claim 8 has been amended to add the corresponding mathematical symbols from the embodiment described in the specification in order to make it easier for the Examiner to follow claim 8 and see the antecedent basis in the specification. The mathematical notations in parenthesis are by of example only and are not to be construed as limiting the claim.

Accordingly, it is submitted that **claim 8 and claims 9-13 dependent therefrom** now distinguish patentably and unobviously over the references of record.

Claim 9 has been amended to emphasize the differences between the present filtering and related operations relative to the Hamming window of Anderson. Claim 9 calls for filtering the differences between the estimated and measured projections to generate a filtered difference. By contrast, Anderson uses a Hamming window to weight each ray in accordance with the length of the part of the ray that traverses the reconstruction circle. Because claim 9 sets forth a different filtering operation than Anderson, it is submitted that **claim 9 and claims 14-17 dependent therefrom** distinguish patentably and unobviously over the references of record.

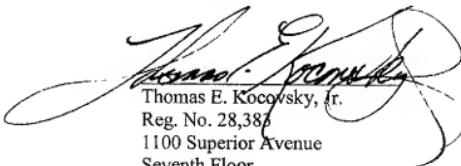
CONCLUSION

For the reasons set forth above, it is submitted that all claims distinguish patentably over the references of record and meet all statutory requirements. An early allowance of claims 1-17 is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

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